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10/608,422

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Samcer Desai

RUS0119 (VEC-101-A)

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EXAMINER

CIRIC, LJILJANA V

ART UNIT

PAPER NUMBER

3744

MAIL DATE

DELIVERY MODE

11/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/608,422

Applicant(s)

DESAI ET AL.

Examiner

Ljiljana (Lil) V. Cirig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This Office action is in response to the reply filed on September 4, 2007.
2. Claims 1 through 30 remain in the application, all as amended.

***Response to Arguments***

3. The declaration pursuant to MPEP 706.02(1)(2)(C) filed on September 4, 2007 is sufficient to overcome the rejection of claims 1 through 30 based upon Fang et al. (U.S. 6,793,012, previously of record) as cited by the examiner in the previous Office action.

However, pursuant to further consideration and additional prior art, new grounds of rejection relative to claims 1 through 30 are presented herewith by the examiner.

***Drawings***

4. Upon further consideration, the drawings filed on June 30, 2003 are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s), for example: the at least one baffle in each of the first and the second end tanks has a peripheral portion and a central portion where the peripheral portion is thicker than the central portion as recited in claim 2; the passageway in each of the plurality of first tubes including partitions which divide the passageway such that the tube performs a passive bypass function as recited in claims 3, 4, 9, 10, and 17; the partitions including fins as recited in claims 4, 10, and 18; and, at least one of the first, second, or third metal tubes including an interior wall structure including a partition adapted for subdividing the tube into a plurality of passageways within the tube as recited in claims 14 through 18. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being

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amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### *Claim Objections*

5. Claims 21 through 28 are furthermore objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Each of claims 21 through 28 includes one or more features outside of the scope of the base claim from which each appears to depend, thus failing to narrow the scope of the parent claim.

#### *Claim Rejections - 35 USC § 112*

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 3, 4, 9, 10, and 14 through 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The

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originally filed disclosure (including the originally filed drawings) fails to fully describe how, for example, the partitions included within the tubes are to be configured so as to allow the tubes to perform a passive bypass function as recited in the claims. Alternately, the originally filed disclosure fails to indicate that such partitions are well-known in the art, thus obviating the need for a full description thereof. Furthermore, the originally filed disclosure (including the originally filed drawings) fails to describe at all how the partitions are to be configured so as to include fins. Thus, upon reconsideration, the claims are deemed to contain subject matter which is not sufficiently described in the specification as required.

### *Claim Interpretation*

8. The examiner hereby notes that the claims in the instant application as written, are drawn to one or more heat exchangers, and that, while different heat exchange fluids are recited in the claims, these fluids merely constitute materials worked upon by the heat exchanger(s)/apparatus, and hence are of no significance in determining the patentability of the claims. As stated in the MPEP, "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969).

Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)).

### *Claim Rejections - 35 USC § 102*

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

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international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

(f) he did not himself invent the subject matter sought to be patented.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 6, 19 through 21, 23, 25, 27, and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura et al.

Nakamura et al. discloses a heat exchanger essentially as claimed, including, for example: opposed first and second end tanks 25/47 and 27/47; a plurality of tubes 35; a plurality of fins 39; an inlet 53 and an outlet 55 on an end tank 27/47; and, an inlet 57 on end tank 25/47 and an outlet 59 on end tank 27/47.

The reference thus reads on the claims.

11. Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kokubunji et al.

Kokubunji et al. discloses a heat exchanger essentially as claimed, including, for example: opposed first and second end tanks 130; a plurality of first and second tubes 111 and 121 in fluid communication with the first and second end tanks; a plurality of fins 112 and 122 disposed between the first and second tubes 111 and 121; an inlet 113 on the second end tank 130 and an outlet 114 on the first end tank 130 for a second fluid flow; an outlet 124 and a hole 135 broadly readable on an inlet on the first

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end tank 130 for a first fluid flow; at least one baffle 134 in each of the end tanks 130, the baffle having a peripheral portion which is thicker (has a greater dimension) than a central portion as shown in Figure 5.

The reference thus reads on the claims.

12. Claims 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Marsais et al. ('873).

Marsais et al. discloses a heat exchanger essentially as claimed, including, for example: at least one end tank 18 having at least three baffles therein as shown in either Figure 3 or Figure 5 or Figure 7, at least two heat exchangers (F1, F2, and F3) including a plurality of spaced apart metal tubes 12 with fins 14 between the spaced tubes 12, at least two outlets 64 and 66 or 106 and 108 or 148 and 150 OR at least two inlets 146 and 34 on the at least one end tank 18. The heat exchangers are used to cool the engine and hence constitute radiators.

The reference thus reads on the claims.

13. Claims 1, 5 through 8, 11 through 16, and 19 through 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Hu (U.S. Patent No. 6,904,963, filed on June 25, 2003).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

14. Claims 1, 5 through 8, 11 through 16, and 19 are rejected under 35 U.S.C. 102(f) because the applicant did not invent the claimed subject matter. The subject matter of the aforementioned claims is fully disclosed by Hu (U.S. Patent No. 6,904,963, filed on June 25, 2003). Hu is not listed as an inventor for the instant application.

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15. The non-application of prior art against claims 3, 4, 9, 10, 17, and 18 should not be construed as indicating allowable subject matter unless the rejection under 35 U.S.C. 112, first paragraph, cited above by the examiner is overcome by applicant.


*Conclusion*

16. The additional prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible work schedule but can normally be reached on most days during the work week between the hours of 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Ljiljana (Lil) V. Ciric  
Primary Examiner  
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